

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application.

Claim 1 (currently amended): A method of isolating and culturing mesenchymal stem cells from cryopreserved umbilical cord blood, comprising the steps of:

thawing cryopreserved umbilical cord blood and adding ~~α MEM (alpha-minimum essential medium)~~ alpha-minimum essential medium (α MEM) thereto, followed by centrifugation to harvest monocytes;

isolating CD133 positive cells from the obtained monocytes; and

~~subjecting~~ suspending the isolated cells into ~~suspension~~ culture ~~in the~~ with α -MEM containing at least one of Stem Cell Factor, ~~GM-CSF (granulocyte-macrophage colony-stimulating factor)~~ granulocyte-macrophage colony-stimulating factor (GM-CSF), ~~G-CSF (granulocyte colony-stimulating factor)~~ granulocyte colony-stimulating factor (G-CSF), ~~IL-3 (interleukin-3)~~ interleukin-3 (IL-3) and ~~IL-6 (interleukin-6)~~ interleukin-6 (IL-6).

Claim 2 (original): The method as set forth in claim 1, wherein the umbilical cord blood is added with 2-fold volume of the α MEM, overlapped on Ficoll-Hypaque, and then subjected to centrifugation to harvest monocytes.

Claim 3 (currently amended): The method as set forth in claim 1, wherein the α MEM for culturing monocytes further comprises at least one of an antibiotic, an anti-fungal agent, glutamine and fetal bovine serum.

Claim 4 (new): The methods set forth in claim 1 wherein the culture in the α MEM contains Stem Cell Factor, GM-CSF, G-CSF, IL-3 and IL-6.

Claim 5 (new): The method as set forth in claim 3, wherein the α MEM for culturing monocytes further comprises an antibiotic, an anti-fungal agent, glutamine and fetal bovine serum.